5

## ABSTRACT OF THE DISCLOSURE

Transmitted data symbols are estimated from a plurality of signal samples that are received by a plurality of receivers. The data symbols are part of a data stream that is divided into a plurality of substreams. Each of the received signal samples includes one or more data symbols from each of the plurality of substreams. The plurality of signal samples are represented as a function of a plurality of transmitted data symbols and a plurality of channel response values. Each of the plurality of channel response values represents a respective signal response of a transmission path of at least one of the transmitted data symbols. At least part of the channel response values includes channel responses caused by multipath scattering. A plurality of estimated data symbols is defined as a function of the plurality of signal samples. The function satisfies a performance related criterion. A difference expression that represents a difference between a function of a plurality of estimated data symbols and a function of the plurality of signal samples is determined and is a sum of a plurality of terms. Values for each of a portion of a plurality of estimated data symbols are repeatedly selected such that one of the plurality of terms if minimized. Values for a further portion of the plurality of estimated data symbols are repeatedly selected such that a further one of the plurality of terms is minimized, where the further one of the plurality of terms is a function of the further portion of the plurality of estimated data symbols and the selected values of the plurality of estimated data symbols, is repeated until each of the terms is minimized.

G:\Apps\WPDATA\NORTEL\3599\APPLICATION.wpd